

CLAIM AMENDMENTS

Claim 1. (Cancelled)

Claims 2-18. (Cancelled)

Sub D1  
C1

19. (Currently Amended) A method comprising:  
providing a light modulator comprising a pixel cell and a first memory local to the pixel cell relative to other pixel cells of the modulator to store a digital indication of a predetermined voltage;  
providing a capacitor to maintain a terminal voltage of the a pixel cell near the a predetermined voltage;  
providing a ~~first~~ memory to store a ~~first~~ digital indication of the predetermined voltage;  
~~during a frame update operation, communicating the second digital indication from the second memory to update the terminal voltage of the pixel cell; and~~  
during a refresh operation, converting the ~~first~~ digital indication into an analog voltage to update a charge on the capacitor.

Claim 20. (Cancelled)

Sub D1  
C2

21. (Currently Amended) The method of claim 19, wherein the ~~first~~ memory is local to the pixel cell ~~and the second memory is a global memory for multiple pixel cells.~~

22. (Previously Added) The method of claim 19, wherein the memory comprises a static random access memory.

23. (Previously Added) The method of claim 19, further comprising:  
during the refresh operation, reading the digital indication from the memory.

24. (Previously Added) The method of claim 19, further comprising:  
during the refresh operation, latching the digital indication.

25. (Currently Amended) The method of claim 19, further comprising:  
performing a frame update operation to the pixel cell at a rate different than a rate of the  
refresh operation wherein the refresh and frame update operations are associated with different  
rates.

26. (Currently Amended) A method comprising:  
providing a light modulator comprising an array of pixel cells and memory buffers, each  
memory buffer being associated with a different one of the pixel cells and each memory buffer  
being located closer to the associated pixel cell than the other pixel cells;

*C2*  
*cond.*  
providing capacitors, each capacitor being associated with a different one of the pixel  
cells ~~cell~~ to maintain a terminal voltage of the associated pixel cell near a predetermined voltage;

providing ~~first memory buffers, each first memory buffer being associated with a~~  
~~different one of the pixel cells and storing a first digital indication of the associated~~  
~~predetermined voltage;~~

providing a second memory separate from the first memory buffers to store second digital  
indications of updated voltages for the pixel cells;

during a frame update operation, communicating the second digital indications from the  
second memory to update the terminal voltages of the pixel cells; and

during a refresh operation, converting the first digital indications stored in the memory  
buffers into analog voltages to update charges on the capacitors.

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Claim 27. (Cancelled)

*Sub D1*  
*C3*  
28. (Currently Amended) The method of claim 26, wherein the ~~first~~ memory buffers  
are localized to the different associated pixel cells, ~~and the second memory is a global memory~~  
~~associated with the pixel cells~~

29. (Previously Added) The method of claim 26, wherein the capacitors are  
associated with a row of pixels.

30. (Previously Added) The method of claim 26, wherein the memory buffers comprise a part of a static random access memory.

31. (Previously Added) The method of claim 26, further comprising: during the refresh operation, reading the digital indications from the memory buffers.

32. (Previously Added) The method of claim 26, further comprising: during the refresh operation, latching the digital indications.

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Claims 33-39 (Cancelled)

40. (Currently Amended) A light modulator comprising:  
an array of pixel cells;  
capacitors, each capacitor being associated with a different pixel cell to maintain a terminal voltage of the associated pixel cell near a predetermined voltage;  
first memory buffers being spatially distributed among the pixel cells, each first memory buffer being associated with a different one of the pixel cells and storing a first digital indication of the associated predetermined voltage;  
a second memory separate from the first memory buffers to store second digital indications of updated voltages for the pixel cells;  
a circuit to during a frame update operation, communicate the second digital indications from the second memory to update the terminal voltages of the pixel cells; and  
digital-to-analog converters to convert the first digital indications into analog voltages to update charges on the capacitors during a refresh operation.

41. (Currently Amended) The light modulator of claim 40, wherein the refresh operation ~~operations~~ occurs at a different rate than a the frame update operation to the pixel cells.

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Claim 42. (Cancelled)

Sub  
D1  
C5

43. (Previously Added) The light modulator of claim 40, wherein the capacitors are associated with a row of pixels.

44. (Previously Added) The light modulator of claim 40, wherein at least one of the memory buffers comprises a static random access memory.